

Fig.1

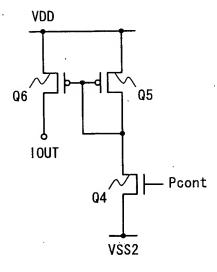
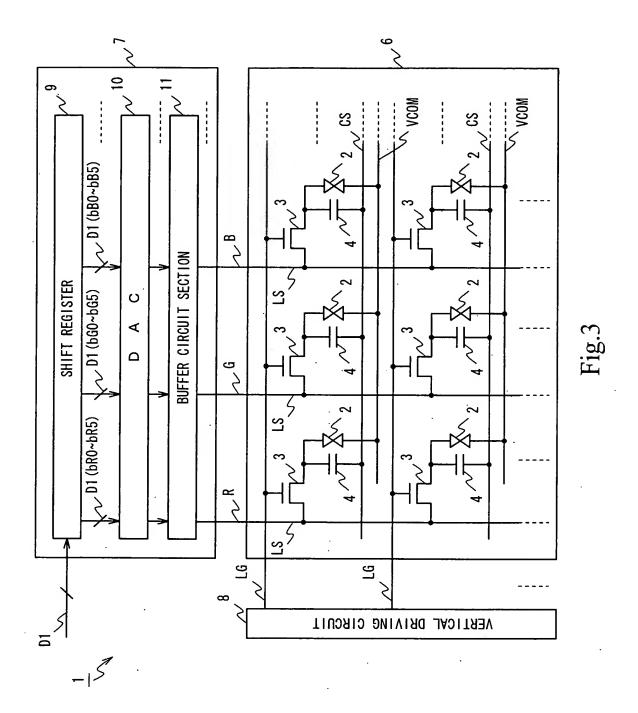
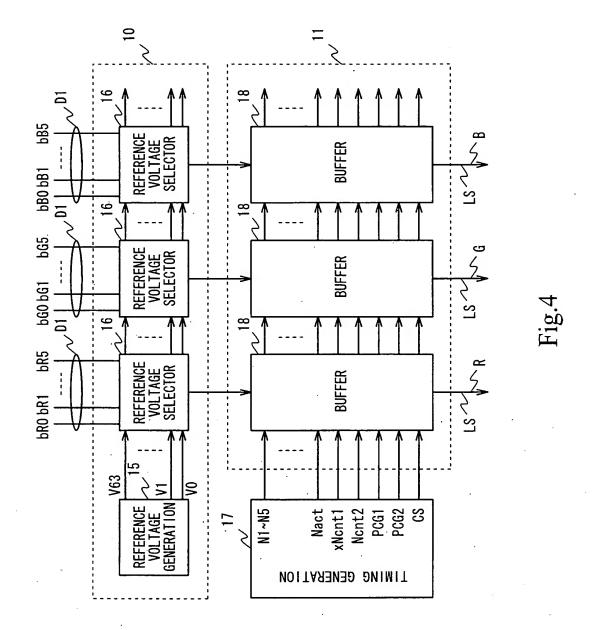
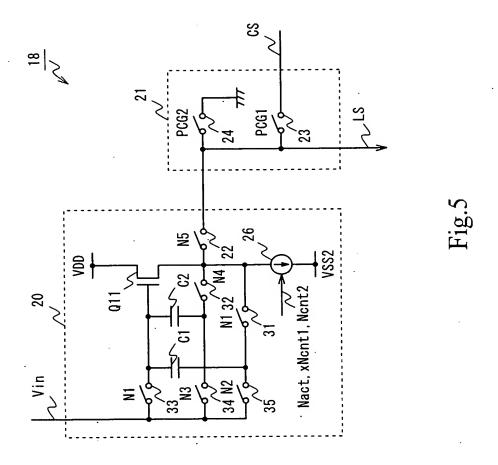


Fig.2







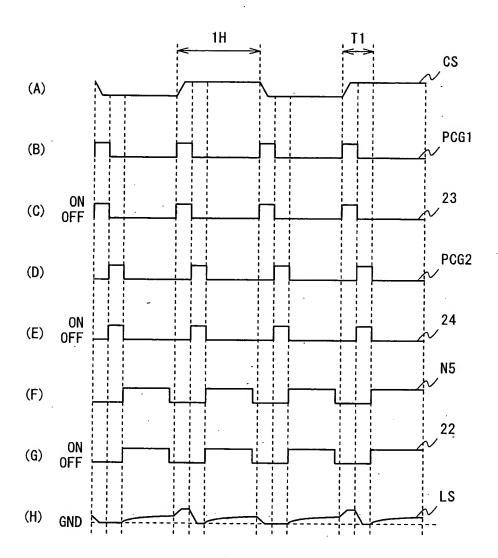
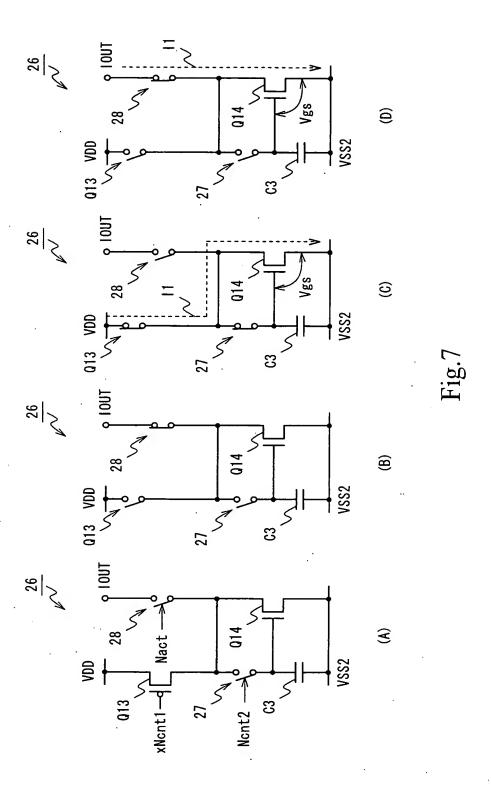


Fig.6



6/17

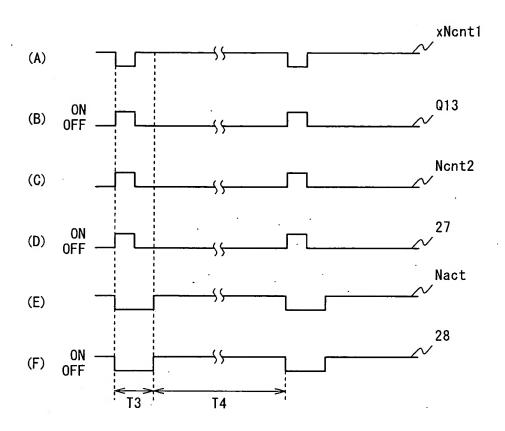
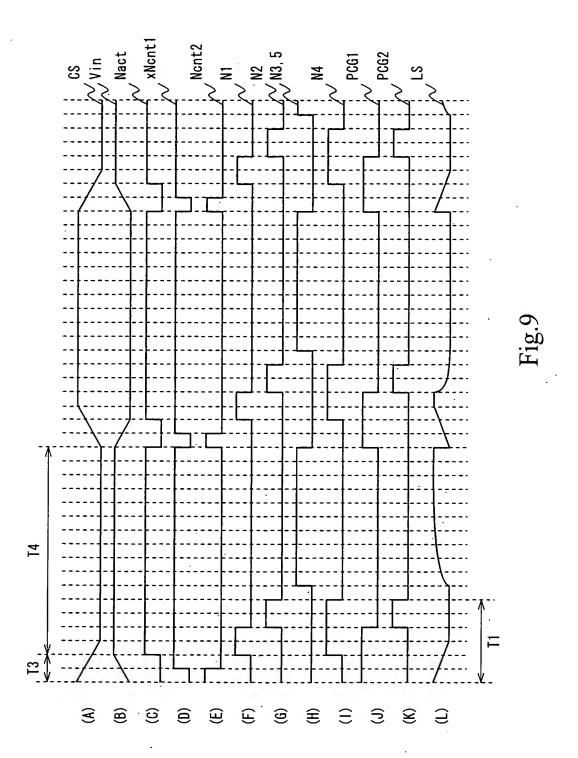
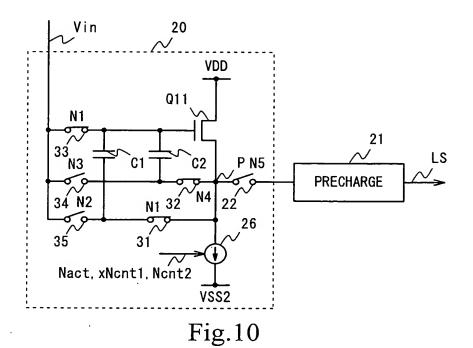
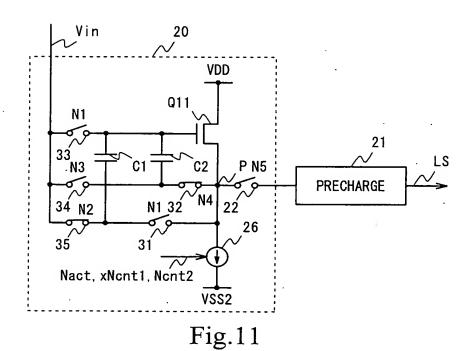


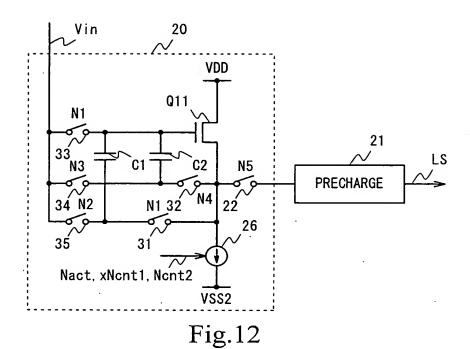
Fig.8



8/17







Vin 20 VDD Q11 N1 21 LS `C1 N3 **N**5 **PRECHARGE** 34 N2 26 Nact, xNcnt1, Ncnt2 VSS2 Fig.13

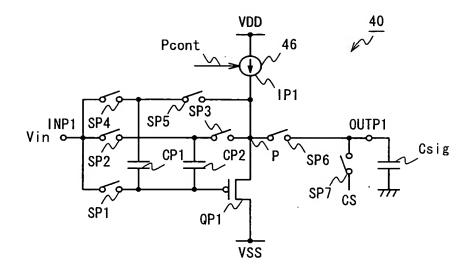


Fig.14

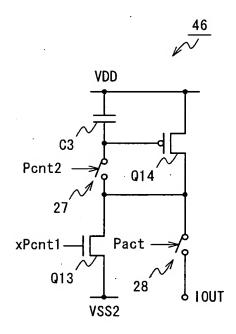


Fig.15

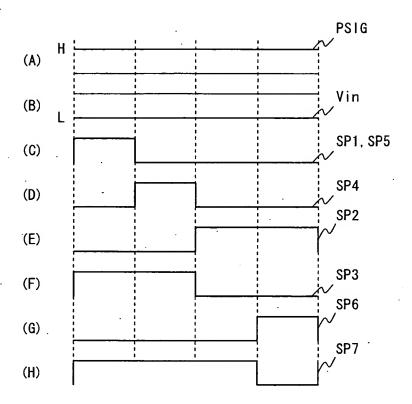


Fig.16

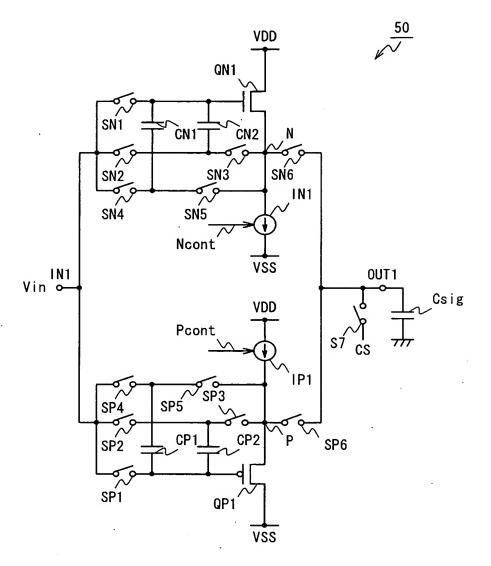


Fig.17

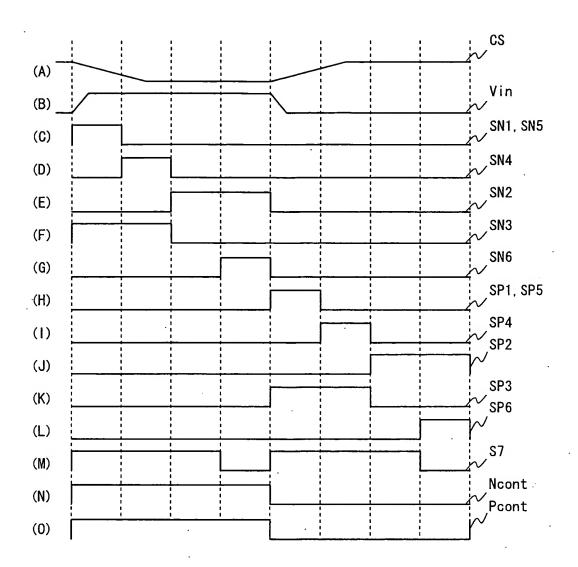


Fig.18

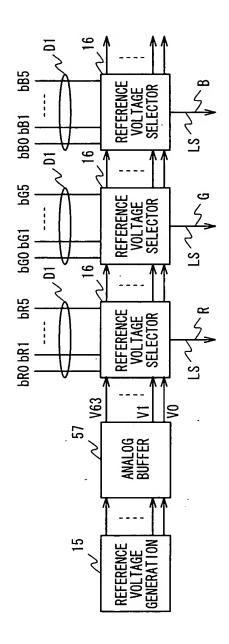
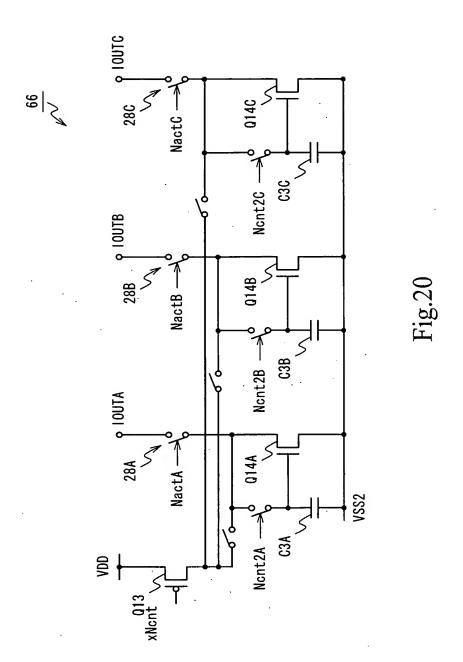


Fig. 19



## Description of Reference Numerals

1.....liquid crystal display device, 2.....liquid crystal cell, 3,Q1 to Q14C.....transistor, 4.....storage capacitor, 6.....display section, 7.....horizontal driving circuit, 8.....vertical driving circuit, 9.....shifter register, 10.....digital-to-analog conversion circuit, 11....buffer circuit section, 15.....reference voltage generation circuit, 16.....reference voltage selector, 17.....timing generation circuit, 18.....buffer circuit, 20,40,50,57.....analog buffer circuits, 21.....precharge circuit, 22,23,24,27,28,31 to 35.....switch circuits, 26,46,66.....constant current circuits, C1 to C3, C3A to C3C.....capacitors